

2. Bruce

Program Name: Bruce.java

Input File: bruce.dat

Bruce has a fencing company. His latest job involves fencing several square plots of land. Oddly enough, all Bruce knows about each plot he is expected to fence, is the area. Of course, to determine the amount of fencing he must purchase for the job Bruce needs to calculate the perimeter of each plot. Write a program that will read the area of a square plot of land and then print the amount of fencing he must purchase.

Input: A single value N ($N \leq 10$) representing the number of plots to be fenced. The next N lines will each contain a single whole number A ($1 \leq A \leq 40000$) representing the area of each of the plots of land measured in square feet.

Output: N lines where each line contains the number of linear feet required to fence the plot. Each value should be rounded to four decimal places.

Sample input:

```
4
100
50
85
20000
```

Sample output:

```
40.0000
28.2843
36.8782
565.6854
```